

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A method for automatic amplification adjustment in a
5 hearing aid device, comprising:

transducing an acoustic input signal into an electrical signal;

determining a speech signal level and a noise signal level in a plurality of
frequency bands of the electrical signal; and

10 determining parameters for automatic adjustment of an amplification of
the electrical signal depending on the speech signal level, the noise
signal level, and frequency of the electrical signal dynamically,
wherein determining parameters comprises applying a loudness
model.

- 15 2. (cancelled).

3. (cancelled).

4. (original) The method according to claim 1, further comprising:

20 determining an overall signal level of the electrical signal in the individual
frequency bands and a total signal level of the electrical signal over
the entire bandwidth of the electrical input signal;

wherein

25 determining parameters further includes considering the total signal level
when performing the automatic adjustment of the amplification.

5. (original) The method according to claim 1, wherein the determining of the speech and noise signal levels includes performing a level evaluation.

6. (original) The method according to claim 1, wherein the determining of the parameters further includes utilizing individual audiometric data of a hearing aid user.

7. (currently amended) A hearing aid device, comprising:

10 a filter bank comprising an electrical signal input configured to split an electrical signal into frequency bands, the filter bank comprising an output for a signal in each frequency band;

one or more level detecting devices comprising an input that is connected to the filter bank output, and an output, the level detecting devices being configured to determine a speech signal level and a noise signal level in the frequency bands; and

15 a parameter determining device comprising an input connected to the output of the level detecting devices, the parameter determining device being configured to determine parameters to automatically adjust an amplification of the electrical signal dependent on the speech signal level and the noise signal level dynamically, wherein the parameter determining device further comprises a loudness model that is configured to assist in the parameter determination.

8. (cancelled).

25 9. (currently amended) The hearing aid device according to claim 17 8, wherein the parameter determining device further comprises an individual audiometric data input via which audiometric data are supplied to the parameter determining device.

10. (original) The hearing aid device according to claim 7, further comprising a synthesis device having one or more inputs that is connected respectively to one or more outputs of the parameter determining device, the synthesis device
5 further comprising an output for providing an electrical output signal based on one or more frequency bands.

11. (original) The device according to claim 10, further comprising one or more multipliers located between the one or more inputs of the synthesis device and
10 the one or more outputs of the parameter determining device.

12. (new) The method according to claim 1, wherein determining parameters comprises applying a speech comprehensibility model.

15 13. (new) A method for automatic amplification adjustment in a hearing aid device, comprising:

transducing an acoustic input signal into an electrical signal;

determining a speech signal level and a noise signal level in a plurality of frequency bands of the electrical signal, and;

20 determining parameters for automatic adjustment of an amplification of the electrical signal depending on the speech signal level, the noise signal level, and frequency of the electrical signal dynamically, wherein determining parameters comprises applying a speech comprehensibility model.

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14. (new) The method according to claim 13, further comprising:

determining an overall signal level of the electrical signal in the individual frequency bands and a total signal level of the electrical signal over the entire bandwidth of the electrical input signal;

wherein

- 5 determining parameters further includes considering the total signal level when performing the automatic adjustment of the amplification.

15. (new) The method according to claim 13, wherein the determining of the speech and noise signal levels includes performing a level evaluation.

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16. (new) The method according to claim 13, wherein the determining of the parameters further includes utilizing individual audiometric data of a hearing aid user.

- 15 17. (new) The hearing aid device according to claim 7, wherein the parameter determining device further comprises a speech comprehensibility model that is configured to assist in the parameter determination.

18. (new) A hearing aid device, comprising:

- 20 a filter bank comprising an electrical signal input configured to split an electrical signal into frequency bands, the filter bank comprising an output for a signal in each frequency band;

- one or more level detecting devices comprising an input that is connected to the filter bank output, and an output, the level detecting devices
25 being configured to determine a speech signal level and a noise signal level in the frequency bands; and

a parameter determining device comprising an input connected to the output of the level detecting devices, the parameter determining

5 device being configured to determine parameters to automatically
adjust an amplification of the electrical signal dependent on the
speech signal level and the noise signal level dynamically, wherein
the parameter determining device further comprises a speech
comprehensibility model that is configured to assist in the
parameter determination.

10 19. (new) The hearing aid device according to claim 18, further comprising a
synthesis device having one or more inputs that is connected respectively to one
or more outputs of the parameter determining device, the synthesis device
further comprising an output for providing an electrical output signal based on
one or more frequency bands.

15 20. (new) The device according to claim 19, further comprising one or more
multipliers located between the one or more inputs of the synthesis device and
the one or more outputs of the parameter determining device.